

1R - 427-75

APPROVALS

YEAR(S):

2013

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Thursday, June 06, 2013 3:18 PM
To: Hack Conder (hconder@riceswd.com)
Cc: Leking, Geoffrey R, EMNRD; Laura Pena (lpena@riceswd.com); Katie Jones <kjones@riceswd.com> (kjones@riceswd.com); Scott Curtis (scurtis@riceswd.com)
Subject: Remediation Plan (1R427-75) Termination - ROC EME M-9-6 Site

**RE: Termination Request
for the Rice Operating Company's
EME M-9-6 Site
Unit Letter M, Section 9, T20S, R37E, NMPM, Lea County, New Mexico
Remediation Plan (1R427-75) Termination**

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has received Rice Operating Company's report and request to close the above-referenced site, dated June 3, 2013 (received June 6, 2013). The reports are acceptable to the OCD.

The above-referenced report, submitted in accordance with 19.15.29 NMAC (Rule 29; formally, Rule 116), indicates that Rice Operating Company has met the requirements of 19.15.29 NMAC; therefore, the OCD approves the report and hereby notifies you that the remediation plan (1R427-75) is terminated in accordance with 19.15.29 NMAC.

Please be advised that OCD approval of this report does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

RICE *Operating Company*

122 West Taylor • Hobbs, New Mexico 88240

Phone: (575) 393-9174 • Fax: (575) 397-1471

CERTIFIED MAIL

RETURN RECEIPT NO. 7007 2560 0000 4569 9255

RECEIVED

JUN - 6 2013

June 3, 2013

Mr. Edward Hansen
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: Termination Request
EME M-9-6 (1R427-75): UL/M, Sec. 9, T20S, R37E
RICE Operating Company – Eunice Monument Eumont SWD System

Mr. Hansen:

Rice Operating Company (ROC) is the service provider (agent) for the EME Saltwater Disposal (SWD) System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis.

Background

In 2002, ROC initiated work on the former M-9-6 junction box. The site is located in UL/M, Sec. 9, T20S, R37E. NM OSE records indicate that groundwater would likely be encountered at a depth of approximately 18 +/- feet. On April 2, 2002, a monitoring well (MW-1) was installed a few feet south of the former junction boxes to further access if groundwater was impacted.

Excavation operations began with the removal of the junction boxes according to the Redwood Tank Replacement/Closure Plan for EME SWD Site M-9, including the M-9-6 box, on June 19, 2002. After the former junction box was removed, the site was delineated using a backhoe to collect soil samples at regular intervals, creating a 110x100x20 ft deep excavation. Each sample was field titrated for chlorides, resulting in low concentrations. Representative composite samples of the excavation bottom and the excavation walls were sent to a commercial for analysis of chloride, TPH and BTEX, resulting in a sidewall chloride concentration of 245 mg/kg and concentrations of gasoline range organics (GRO), diesel range organics (DRO) and BTEX below detectable limits. The bottom composite resulted in a chloride concentration of 95 mg/kg and concentrations of GRO, DRO and BTEX below detectable limits. The site was backfilled

to 4 ft below ground surface (BGS) where a compacted red-bed clay layer was installed and density tested. The clay layer will provide a barrier that will inhibit the downward migration of chlorides to groundwater. The excavation was backfilled with remediated soil to ground surface and contoured to the surrounding area. The remediated soil was tested in 3 ft lifts, resulting in low concentrations of chloride. A junction box is no longer necessary. The location is within an active facility; therefore, seeding is not necessary.

Due to the horizontal extent of the excavation, MW-1 was lost and a replacement monitor well (MW-1A) was installed adjacent to the southeast corner of the excavated area. From 2003 to 2007, six additional monitor wells were installed under the Stage 1 Abatement Plan for M-9 SWD (AP-65) and have since been plugged and abandoned.

On July 24, 2009, a termination request was submitted to NMOCD for the M-9 SWD facility site, which is inclusive of M-9-6, based on chloride concentrations in the vadose zone of all borings, monitoring wells, and excavations averaging less than 250 mg/kg, which is representative of background levels. The excavation, backfilling, and installation of a clay layer performed by ROC mitigated any potential threat of constituents of concern (BTEX, chlorides, or TDS) from the area into the vadose zone or groundwater. Groundwater quality conditions on site are at or near background levels and six years of groundwater monitoring have supported the conclusions herein. NMOCD approved the termination request on September 22, 2009.

The junction box site location map, area map, final report, laboratory analysis and current photodocumentation are attached.

Recommendations

Site investigation demonstrates that residual chloride and hydrocarbons in the vadose zone will not with reasonable probability contaminate groundwater in excess of NMOCD standards. This site meets the requirements of the NMOCD-approved Revised Junction Box Upgrade Work Plan (July 16, 2003). As such, ROC request termination of the regulatory file, or similar closure status.

Please contact me at (575)393-9174 if you have any questions or wish to discuss this site. Thank you for your time and consideration.

Sincerely,
RICE Operating Company



Hack Conder
Environmental Manager

enclosures

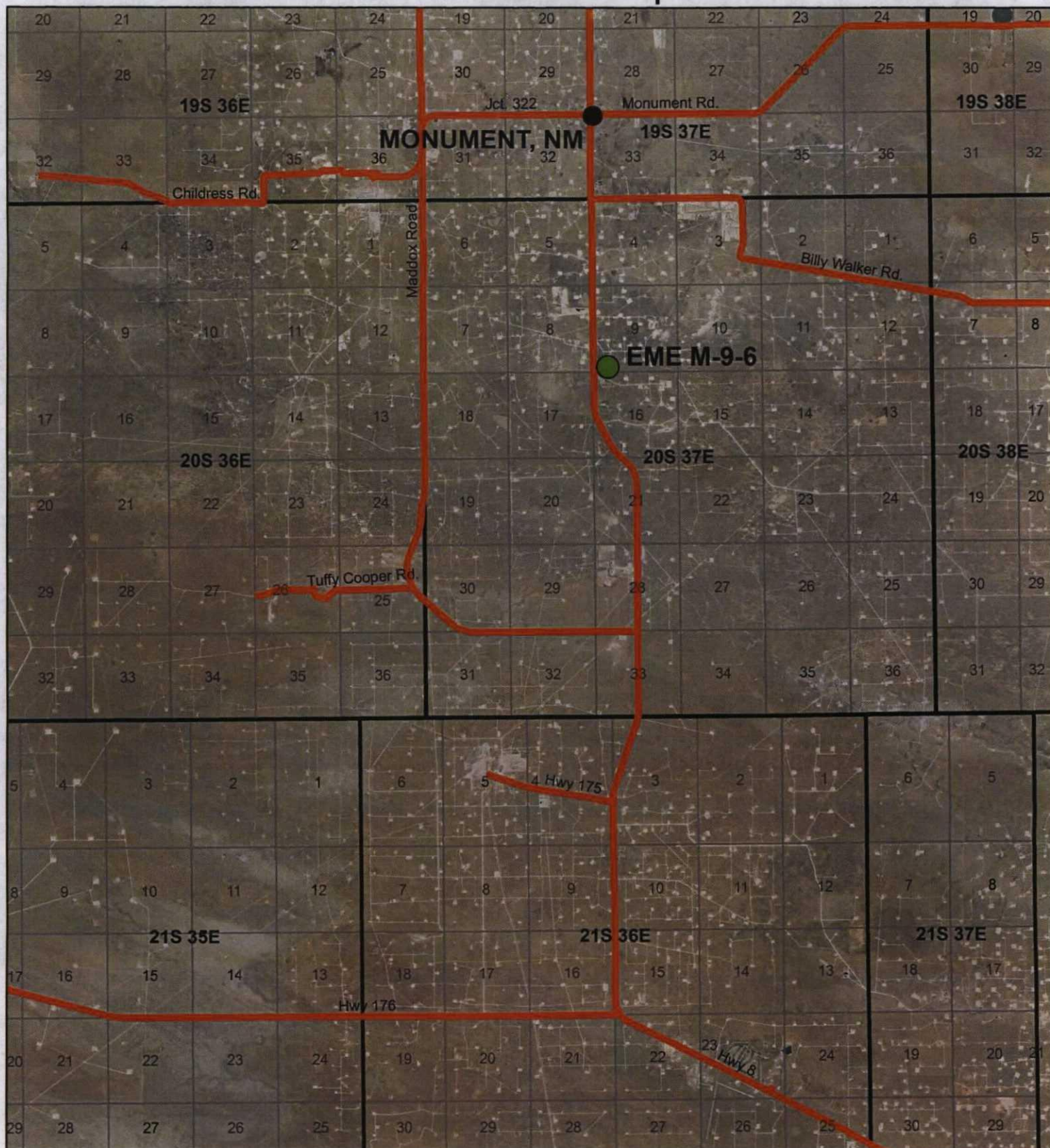
RECEIVED OGD
2013 JUN -5 P 2:08



Site Maps

RICE *Operating Company* (ROC)
112 West Taylor Hobbs, NM 88240
Phone: (575) 393-9174 Fax: (575) 397-1471

Site Location Map



EME M-9-6
(1R427-75)

UL/M SECTION 9
T20S, R37E
LEA COUNTY, NM



0 1 2
Miles

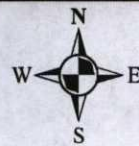
Drawing date: 5/6/13 LS

Area Map



**EME M-9-6
(1R427-75)**

**UL/M SECTION 9
T20S, R37E
LEA COUNTY, NM**



A number line from 0 to 1,000 with a bar graph below it. The bar graph has 5 equal segments, each representing 200 feet. The first three segments are shaded gray, and the last two are white. The total length is 1,000 feet.

Drawing date: 5/6/13 LS



Junction Box Report

RICE *Operating Company* (ROC)

112 West Taylor Hobbs, NM 88240

Phone: (575) 393-9174 Fax: (575) 397-1471

**RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT**

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
EME	M-9-6	M	9	20S	37E	LEA	Length	Width	Depth

LAND TYPE: BLM _____ STATE _____ FEE LANDOWNER S & W CATTLE CO OTHER _____

Depth to Groundwater 20 feet NMOCD SITE ASSESSMENT RANKING SCORE: 20

Date Started 03/21/2002 Date Completed 03/21/2002 OCD Witness NO

Soil Excavated 100 cubic yards Excavation Length 20 Width 12 Depth 16 feet

Soil Disposed _____ cubic yards Offsite Facility _____ Location _____

FINAL ANALYTICAL RESULTS: Sample Date 03/21/2002 Sample Depth 16'

Procure 5-point composite sample of bottom and 4-point composite sample of sidewalls. TPH, BTEX and Chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.

Sample Location	Benzene mg/kg	Toluene mg/kg	Ethyl Benzene mg/kg	Total Xylenes mg/kg	GRO mg/kg	DRO mg/kg	Chlorides mg/kg
SIDEWALLS	<0.025	<0.025	<0.025	<0.025	<10	<10	292
BOTTOM	<0.025	<0.025	<0.025	<0.025	<10	81	97

General Description of Remedial Action: Delineated vertical and lateral extent.

Vertical delineation found a decline in chlorides from 750 ppm @ 10' bgs to 100 ppm @ 16' bgs.

These results indicate impact did not reach groundwater. The excavated soil was blended with fresh soil to 300 ppm chlorides and backfilled. This site is no longer a junction and does not require a box.

CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg
SIDEWALLS	5'	300
BOTTOM	16'	100
Vertical Trench	5'	350
	8'	700
	10'	750
	12'	750
	14'	400
	16'	100

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE April 12, 2002 PRINTED NAME D. E. Anderson

SIGNATURE  TITLE Project Leader - Environmental

ANALYTICAL REPORT

Prepared for:

LOGAN ANDERSON
RE ENVIRONMENTAL
P.O. BOX 13418
ODESSA, TX 79768

Project: Rice
PO#: M-9
Order#: G0204401
Report Date: 09/04/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

RE ENVIRONMENTAL
P.O. BOX 13418
ODESSA, TX 79768
366-0804

Order#: G0204401
Project:
Project Name: Rice
Location: M-9 EME

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0204401-01	Bottom Composite @20'	SOIL	8/28/02 15:00	8/29/02 16:30	4 oz Glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 0.5C		
	8015M					
	8021B/5030 BTEX					
	Chloride					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

LOGAN ANDERSON
RE ENVIRONMENTAL
P.O. BOX 13418
ODESSA, TX 79768

Order#: G0204401
Project:
Project Name: Rice
Location: M-9 EME

Lab ID: 0204401-01
Sample ID: Bottom Composite @20'

8015M

Method	Date	Date	Sample	Dilution		
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		8/30/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0003022-02		9/1/02 9:30	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	106%	80	120
Bromofluorobenzene	119%	80	120

Approval:

Raland K. Tuttle, Lab Director, QA Officer

Date

Celey D. Keene, Org. Tech. Director

Jeanne McMurrey, Inorg. Tech. Director

Sandra Biezugbe, Lab Tech.

Sara Molina, Lab Tech.

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS I, LTD.

12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

LOGAN ANDERSON
RE ENVIRONMENTAL
P.O. BOX 13418
ODESSA, TX 79768

Order#: G0204401
Project:
Project Name: Rice
Location: M-9 EME

Lab ID: 0204401-01
Sample ID: Bottom Composite @20'

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	94.5	mg/kg	1	20	9253	9/4/02	SB

Approval:

Celley D. Keene 9/5/02
Raland K. Tuttle, Lab Director, QA Officer
Celley D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezughe, Lab Tech.
Sara Molina, Lab Tech.

Date

RL = Reporting Limit N/A = Not Applicable

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS I, LTD.

12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0204401

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003018-02			<10.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0204400-04	198	952	1124	97.3%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0204400-04	198	952	1144	99.4%	1.8%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003018-05		1000	1030	103.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204401

<i>BLANK</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003022-02			<0.025		
Ethylbenzene-mg/kg		0003022-02			<0.025		
Toluene-mg/kg		0003022-02			<0.025		
p/m-Xylene-mg/kg		0003022-02			<0.025		
o-Xylene-mg/kg		0003022-02			<0.025		
<i>MS</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0204388-07	0	0.1	0.089	89.%	
Ethylbenzene-mg/kg		0204388-07	0	0.1	0.090	90.%	
Toluene-mg/kg		0204388-07	0	0.1	0.091	91.%	
p/m-Xylene-mg/kg		0204388-07	0	0.2	0.188	94.%	
o-Xylene-mg/kg		0204388-07	0	0.1	0.091	91.%	
<i>MSD</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0204388-07	0	0.1	0.094	94.%	5.5%
Ethylbenzene-mg/kg		0204388-07	0	0.1	0.095	95.%	5.4%
Toluene-mg/kg		0204388-07	0	0.1	0.097	97.%	6.4%
p/m-Xylene-mg/kg		0204388-07	0	0.2	0.198	99.%	5.2%
Xylene-mg/kg		0204388-07	0	0.1	0.095	95.%	4.3%
<i>SRM</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003022-05		0.1	0.096	96.%	
Ethylbenzene-mg/kg		0003022-05		0.1	0.097	97.%	
Toluene-mg/kg		0003022-05		0.1	0.098	98.%	
p/m-Xylene-mg/kg		0003022-05		0.2	0.201	100.5%	
o-Xylene-mg/kg		0003022-05		0.1	0.097	97.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0204401

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003049-01			<20.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204401-01	94.5	667	756	99.2%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204401-01	94.5	667	744	97.4%	1.6%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003049-04		5000	4960	99.2%	

Environmental Lab of Texas I, Ltd.

12600 West I-20 East
Odessa, Texas 79763

Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Fax: 515-563-1713
Donnie Anderson

Project Name:

rice

Company Name

RT Electron microscope

Project #:

Company Address:

Project Loc:

City/State/Zip:

M-9 EME

PO#

Telephone No:

Fax No:

Sampler Signature:

22

[illegible]

Special Instructions

Fax Results to Donnie Anderson

Relinquished by:

Date	Time
8-29-02	4:30p

Received by:

Date	Time
------	------

Time

Relinquished by:

Date	Time
------	------

Time

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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Date:

Tip 5.5

Tip 5.5

ANALYTICAL REPORT

Prepared for:

LOGAN ANDERSON
RE ENVIRONMENTAL
P.O. BOX 13418
ODESSA, TX 79768

Project: Rice

PO#:

Order#: G0204422

Report Date: 09/06/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

RE ENVIRONMENTAL

P.O. BOX 13418

ODESSA, TX 79768

366-0804

Order#: G0204422

Project:

Project Name: Rice

Location: M-9

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0204422-01	5 pt. Wall Comp. @ 13'	SOIL	8/30/02 15:00	9/3/02 11:30	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 16.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0204422-02	4 pt. Bottom Comp. @ 16'	SOIL	8/30/02 15:00	9/3/02 11:30	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 16.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

LOGAN ANDERSON
RE ENVIRONMENTAL
P.O. BOX 13418
ODESSA, TX 79768

Order#: G0204422
Project:
Project Name: Rice
Location: M-9

Lab ID: 0204422-01
Sample ID: 5 pt. Wall Comp. @ 13'

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>CK</u>	<u>8015M</u>
		9/3/02	1	1		

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>CK</u>	<u>8021B</u>
0003053-02		9/5/02 13:19	1	25		

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	114%	80	120
Bromofluorobenzene	115%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 2.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

LOGAN ANDERSON
RE ENVIRONMENTAL
P.O. BOX 13418
ODESSA, TX 79768

Order#: G0204422
Project:
Project Name: Rice
Location: M-9

Lab ID: 0204422-02
Sample ID: 4 pt. Bottom Comp. @ 16'

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		9/3/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	50.3	10.0
TOTAL, C6-C35	50.3	10.0

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0003053-02		9/5/02 14:25	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	108%	80	120
Bromofluorobenzene	113%	80	120

Approval:

Raland K. Tuttle 9-06-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

LOGAN ANDERSON
RE ENVIRONMENTAL
P.O. BOX 13418
ODESSA, TX 79768

Order#: G0204422
Project:
Project Name: Rice
Location: M-9

Lab ID: 0204422-01
Sample ID: 5 pt. Wall Comp. @ 13'

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Chloride	245	mg/kg	1	20	9253	9/4/02	SB

Lab ID: 0204422-02
Sample ID: 4 pt. Bottom Comp. @ 16'

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Chloride	354	mg/kg	1	20	9253	9/4/02	SB

Approval:

Raland K. Tuttle 9-06-02
Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS I, LTD.

12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0204422

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003048-02			<10.0		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003048-03		952	1003	105.4%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003048-04		952	992	104.2%	1.1%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003048-05		1000	1040	104.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204422

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003053-02			<0.025		
Ethylbenzene-mg/kg		0003053-02			<0.025		
Toluene-mg/kg		0003053-02			<0.025		
p/m-Xylene-mg/kg		0003053-02			<0.025		
o-Xylene-mg/kg		0003053-02			<0.025		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0204422-01	0	0.1	0.093	93.%	
Ethylbenzene-mg/kg		0204422-01	0	0.1	0.095	95.%	
Toluene-mg/kg		0204422-01	0	0.1	0.095	95.%	
p/m-Xylene-mg/kg		0204422-01	0	0.2	0.196	98.%	
o-Xylene-mg/kg		0204422-01	0	0.1	0.095	95.%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0204422-01	0	0.1	0.094	94.%	1.1%
Ethylbenzene-mg/kg		0204422-01	0	0.1	0.096	96.%	1.%
Toluene-mg/kg		0204422-01	0	0.1	0.096	96.%	1.%
p/m-Xylene-mg/kg		0204422-01	0	0.2	0.198	99.%	1.%
Xylene-mg/kg		0204422-01	0	0.1	0.096	96.%	1.%
RM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003053-05		0.1	0.105	105.%	
Ethylbenzene-mg/kg		0003053-05		0.1	0.105	105.%	
Toluene-mg/kg		0003053-05		0.1	0.108	108.%	
p/m-Xylene-mg/kg		0003053-05		0.2	0.215	107.5%	
o-Xylene-mg/kg		0003053-05		0.1	0.104	104.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0204422

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003050-01			<20.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204410-15	5320	5000	10300	99.6%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204410-15	5320	5000	10200	97.6%	1.0%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003050-04		5000	4960	99.2%	

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CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Donic Andersen

Project Name:

Rice

$25 \text{ Enu/parman for}$

Project #:

Project Loc: M-9

6-22

PO #

Fax No:

1

[illegible]



Current Photodocumentation

RICE *Operating Company* (ROC)
112 West Taylor Hobbs, NM 88240
Phone: (575) 393-9174 Fax: (575) 397-1471

EME M-9-6 (1R427-75)

UL/M, Section 9, T20S, R37E



Facing East

3/26/2013



Facing South

3/26/2013